



HORIZON

Installation Manual





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INSTALLATION MANUAL

Contents

About the Stairlift

- Controls
- Swivel Seat
- Charging Points
- Remote Controls

Kitting List

Required Installation Equipment

Installing the Stairlift

- Charger
- Assembling the Rail
- Charge/End Stop, End Cap
- Joining Rail
- Connecting Charge Circuit
- Fit Legs
- Set Clearance Distances
- Load Drive Unit
- Fit Chassis Leg
- Electrical Connections
- Adjust Seat Height
- Fit Chair
- Setting Software Options
- Level Seat
- Offset Footrest
- Fix Racking

Chair Alteration

Test Running Stairlift, Unladen

Remote Controls

Test Running Stairlift, Laden

Final Checks

Certificate For Test and Examination

Customer Hand-Over

Connection Diagram

Technical Information

Diagnostic Codes

Engineers Menu

Servicing

Labels, Warnings and Packaging

ABOUT THIS MANUAL

Description of this manual

This manual is intended to show you how to install a Platinum Horizon Standard stairlift.

This manual contains detailed instructions about:

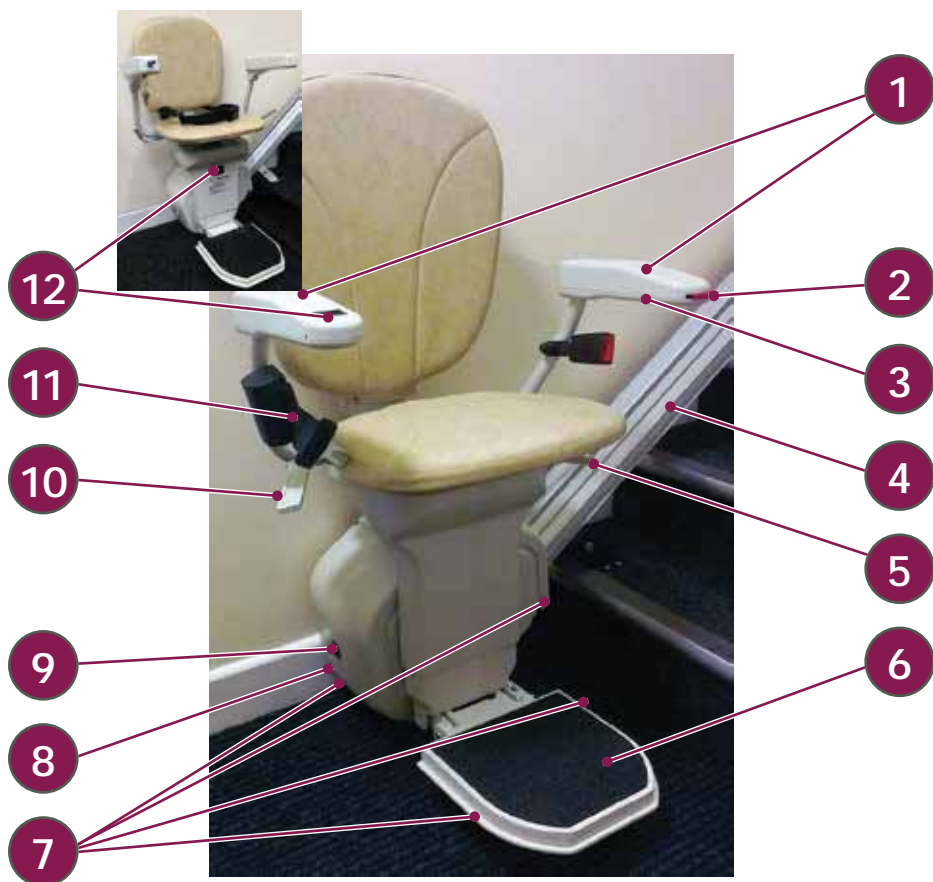
- Required Knowledge
- Typical Kitting List of Parts in a Platinum Horizon stairlift
- Required Installation Equipment you will need to install a stairlift
- Health and Safety Guidance
- Installing the stairlift
- Testing the stairlift
- Troubleshooting
- Technical Information and System Status Codes
- Instructing the User how to Use the Product Paperwork
- Quick Reference Guide

Required knowledge

This manual assumes that you have the following knowledge:

- Basic Mechanical Skills - so you understand what the components of the stairlift do and how they fit and work together
- Basic Wiring Skills - so you understand how the stairlift is connected to the mains power supply; and what the electrical components of the stairlift do and how they fit and work together
- Health and Safety Awareness - so you are fully aware of and responsible for the health and safety of yourself and the people around you

ABOUT THE STAIRLIFT



No.	Meaning	No.	Meaning
1	Arm Rests (folds up and down)	9	On/Off Switch
2	Directional Control	10	Seat Swivel Levers
3	Key Switch	11	Lap Belt
4	Rail	12	Status Display
5	Footrest Lever (Plus model only)	13	Mains Power Connection
6	Footrest (folds up and down)	14	Charging Point
7	Safety Edges	15	Remote Control
8	Hand Wind Point		

These numbers are used both for this Installation Manual and the User Guide.

CONTROLS

Mains Power Connection (13)

The stairlift should be plugged in at the nearest mains socket. This could be at the top or bottom of the stairs. The lift needs to be plugged in and switched on at all times. When the power is on, a green indicator light will be shown on the power supply, mounted nearby. The light will be dim when the lift is off charge, bright when on.



On / Off Switch

The On / Off Switch (9) is used to switch the stairlift on or off. If the stairlift is turned off here the batteries will not recharge.



Status Display

The Status display (12) displays current information. If any faults develop with the operation of the lift they will be displayed here. For a list of codes please see System Status Codes section in this manual.



Key Switch

The Key Switch (3) is used to lock the stairlift. The Key Switch is located on the underside of the armrest which contains the direction control.



Direction Control

The direction control (2) is located at the end of one of the armrests. To move the chair, push and hold the joystick in the direction you want to travel. There is a short delay before the stairlift will start or change direction. The joystick is silver and black on the Standard model & red on the Plus.



Footrest

The footrest (6) can be folded manually on the Standard model, or using the footrest lever (5) on the Plus model.



SWIVEL SEAT

Swivel Seat

For safety, the seat is locked into one of two positions. In the normal travel position, the seat will be locked into position with your back parallel to the rail. This is so you do not catch your feet on the steps during travel. The lift will not travel unless the seat is locked into this position.

The Plus with Powered Swivel model is fitted with an automatic, powered swivel. The seat will swivel automatically to allow easy access when the lift reaches the top of the stairs. It will then swivel back into the correct position before you start your downwards journey.

To swivel the seat on a Standard Model or, if you need to rotate the seat manually, operate one of the Seat Swivel Levers (10), and swivel towards the landing until the seat comes to a stop then release the lever to lock the seat in place. Make sure the seat is locked before you try to sit down or get up from it. To operate, lift the lever for a Standard Model, push down the lever for a Plus Model.

To return the seat to the normal travel position, operate one of the Seat Swivel Levers (10) and swivel away from the landing until the seat comes to a stop then release the lever to lock the seat in place. The seat only swivels at the top of the stairs. If you try to swivel the seat whilst the lift is moving, the chair will stop.



Horizon Plus Model



Horizon Standard Model

Safety Edges

The footrest and the motor unit are fitted with Safety Edges (7). These are pressure pads which will stop the lift if they come into contact with any obstructions.

If the lift stops because it has encountered an obstruction, a fault code will be displayed on the diagnostic display. Wait two or three seconds, then reverse away from the obstruction.



Lap Belt

The Lap Belt (11) holds you safely on the seat as you climb or descend the stairs. The Standard model clips together in the centre. Push the 2 plastic clips together to release. The Plus model belt is like a car seat belt, this extends from the holder to clip into a socket. Push the red button to release. The lap belt must be used every time the stairlift is used. Do not undo the lap belt until the chair reaches the end of the track.



CHARGE POINTS & REMOTES

Charging Points

These (14) are located at the top and bottom of the track.
The lift MUST be parked on a charging point when not in use.
The stairlift will sound an audible beep if it is not parked on a charging point.



Remote Controls

The Remote Controls (15) work in the same way as the arm controls.
The standard lift is supplied with 2 remote controls.
These remote controls have 3 buttons. Up, Down and Park.



TYPICAL KITTING LIST

A typical installation will use the following supplied parts:

- 5 x Rail clamps
- 5 x Legs
- 5 x Leg mounts
- 10 x M10 x 16 hex bolts
- 10 x M10 washers
- 10 x M8 x 20 Hex bolts
- 10 x M8 Plain nuts
- 20 x M8 Washers
- 20 x 6.3 x 38 Wood screws
- 1 x Extrusion clamp
- 1 x Extrusion clamp lower A
- 1 x Extrusion clamp lower B
- 2 x M6 x 10 Countersunk Hex screws
- 8 x M8 x 16 Button Head Hex screws
- 2 x Extrusion end plates
- 8 x M6 x 20 Self drill screws
- 2 x Charge ramps & insulators
- 4 x M4 x 10 Countersunk Hex screws
- 4 x Charge ramp captive nuts
- 2 x Remote controls, holsters & batteries
- 1 x Mains – 27v Transformer & bracket
- 8 x Pozi wood screws
- 8 x Red wall plugs
- 2 x 12v 8.5aH Batteries
- 5m x Red and black 2 core cable
- 2 x M5 x 12 Hex button head rack mounting bolts
- 2 x 2.25m Rail extrusions with rack
- 1 x Platinum Horizon carriage
- 1 x Platinum Ergo Seat and Chassis Leg.
- Silicone or PTFE Lubricant for the racking
- 1 x Manual winding handle (to be left with the user)
- 1 x User Guide (to be left with the user)
- 1 x Installation Manual



INSTALLATION EQUIPMENT

To perform a typical installation you will need to use the following types of equipment:

- Safety Goggles and Rigger Gloves
- Spirit level, tape measure
- Drillbits:
 - 4.2mm, 5mm, 6.5mm and 12.5mm HSS Drill Bits. M5 Tap and 45 degree countersink
 - 8mm masonry drill bits (for drilling into brick, stone, concrete, etc)
 - No 3 Screwdriver bit and extension bar for drill to use on footplate screws
- Combination Spanners / Sockets
 - 13mm & 17mm Combination Spanners
 - 13mm Socket with Ratchet
 - Torque Wrench, 17mm socket & 4mm allen key bit
- One set of metric Allen Keys
- Hammer
- Screwdrivers:
 - Pozi 1
 - Pozi 2
 - Terminal screwdriver
- Anti-static wrist strap
- Wire strippers
- Crimping Tool
- Electrical or Combination pliers and Electrical side cutters
- Digital multi-meter/clamp meter (capable of measuring DC currents of up to 30A for at least 5 seconds)
- Electric drill (varispeed with hammer/non-hammer action), (either mains-powered or 24V cordless)



HEALTH & SAFETY GUIDANCE

Electrical Safety

Installation of the stairlift is mainly a manual process. Although you do need to plug the stairlift into a mains power supply socket, this socket MUST already have been installed by a qualified electrician.

All work on the Mains system must be done by a qualified electrician.

Safe Working Practices

When installing the stairlift, follow safe working practices in these areas:

- Working at heights or on the stairs
- Working with power tools or equipment which generate noise
- All loading, transport, unloading, unpacking, lifting and carrying of the equipment should be done in line with current HSE guidelines

Be aware of the risks of equipment falling from a height. For example, tools falling through open-treaded staircases or through banister rails, or equipment falling or sliding down stairs. Always use lifting points supplied in equipment packaging.

Please observe warnings and guidelines printed on equipment packaging.

Giving Guidance To The Site Owner

Important – Intruder Alarms

Intruder alarms often have sensor pads at the top or bottom of staircases or on one or more steps. There may also be alarm wires hidden under a carpet or tucked under a skirting board. Check whether any such sensors or cables need to be moved before drilling into a staircase or floor. Provide guidance to the home owner about what safety risks they and any other people might be exposed to during the installation. For example

- Movement of equipment and tools posing a risk to the buildings or things in it (such as pictures, paintings or ornaments)
- Cables and other equipment posing a trip hazard - especially on or near stairs
- Live electrical equipment (such as electric drills) posing a hazard (for example, if used inappropriately by children)
- Potentially sharp equipment (such as saws, drills bits, knives or chisels)
- Potential noise due to the use of power tools
- Potential creation of airborne dust
- Remember to let the resident know you will take them through how to use the stairlift, so they can let some-one else know what time a demonstration might take place
- Resident must keep boarding/exit areas of the stairlift clear and well lit to a level of 50 lux.

Preparing The Workplace

Before you start the installation, make sure of a Safe Working Environment, with enough space to assemble the stairlift assembly and for you to work around it.

Make sure any loose or fragile property (such as pictures or ornaments) are located in a safe place away from the potential working area. Inspect the area for potential obstructions such as central heating pipes, hidden cables, underfloor heating, etc. The work area should be well lit. If sufficient lighting is not available, temporary lighting should be used. The stair treads should be inspected for their suitability of supporting the installed machinery.

If in doubt, a qualified person should be engaged to check suitability.

INSTALLING THE STAIRLIFT

The stairlift must be fitted so that it does not prevent doors to and in the building from opening and closing.

Laying Out The Components

Each stairlift consists of 3 boxes, the Drive Unit, the Chair and the Chassis Leg. The Chassis leg box also contains the fitting kit.



INSTALLING THE STAIRLIFT

Install The Charger

Mount the DC charger using the bracket supplied near a convenient mains outlet socket. All cables must be securely clipped or trunked to the vicinity of either the top or bottom of the stairlift rail, in accordance with current regulations. The DC output from the charger consists of two cores, plain black indicates 0v, black with a white dash indicates +v.



It is highly recommended that the area of the wall that is drilled is first checked out with a suitable cable/pipe locator to ensure it is safe to proceed. If cables or pipework is discovered then the charger will need to be located elsewhere.

Assembling The Rail



Joining Rail

Assemble rail jointing kit.

Using a soft faced hammer, gently tap the top jointing plate, serrated and first, into the bottom section of the extrusion until the etched line is level with the end of the extrusion.



INSTALLING THE STAIRLIFT

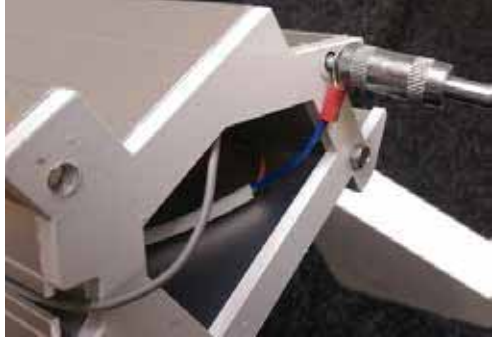
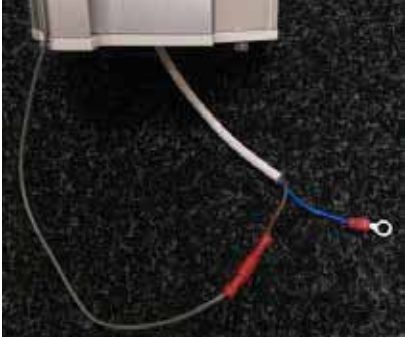
Slide bottom Jointing Plate into lower section of track and tighten one bolt to hold in position. Place lower section of rail onto the staircase and slide top section into position until the gap closes completely. Loosen bolt on bottom Jointing Plate and slide back up until it straddles track joint. Tighten all 8 bolts.



INSTALLING THE STAIRLIFT

Connecting Charge Circuit

Run the supplied 2 core cable down the inside of the rail and connect positive core to grey charge strip cable. Connect 0v core to rail.



If charger is to be located at bottom of the stairs drill 12.5mm (1/2") hole in underside of rail, fit cable gland and pass charge wire through. Connect Black core with white trace to Grey, charge ramp wire and Brown positive core from other charge ramp using supplied connectors. Clamp ring connector on Black charger core and ring connector on 0v core through rail to end plate as shown. Tighten cable gland. This procedure can also apply to the top if the charger is to be located there. The hole for the charger cable access should be drilled before the rail is fixed to the stairs. Finally, fit plastic rail-end cover. All wiring on a powered hinge rail is pre-installed.

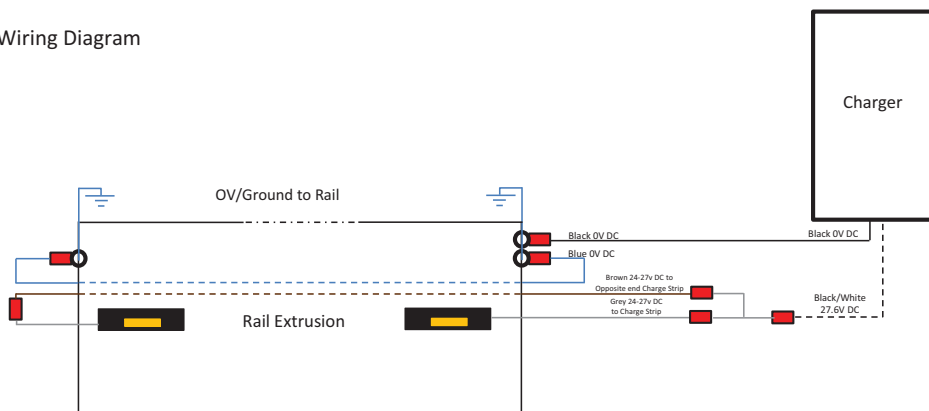
Assemble and fit bottom charge / end stop. Ensure that wires are not caught when fixing.



The charge/end stop assembly determines the height of the stairlift finishing position at the bottom of the stairs. The assembly must be at least 70mm (2 3/4") from the end of the rail. Fit rail end cap.

INSTALLING THE STAIRLIFT

Wiring Diagram

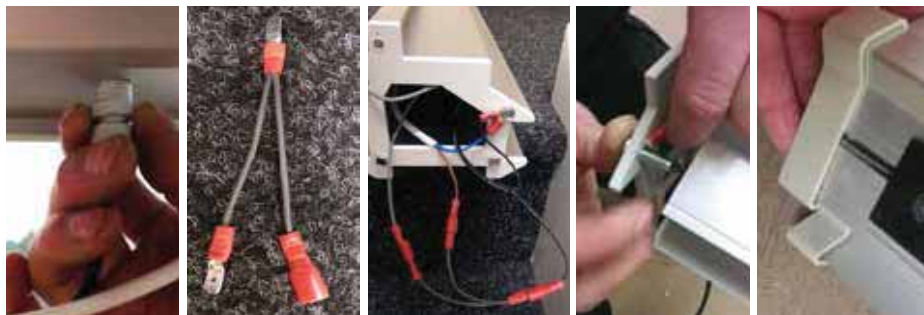


Connecting Charge Circuit (cont.)

At this point, check the rail for correct operation - with the power OFF and using a suitable meter measure between all of the copper charging points and the chassis of the rail and ensure these points are not short circuit to the chassis, if they are it is quite likely that the cable from the charging point has been broken into by the screw holding the charging point in place. Check this and any other points where the insulation of the cabling may have broken down. Do not power the rail until this test has been successfully carried out.

Following this, apply power to the rail and ensure that approximately 27v can be measured from both the upper and lower charging points using the rail chassis as the 0v point. If a powered hinge is part of the installation then the charging points above the hinge may have 2 copper strips on them, if this is the case then, using the rail as the 0v reference you need to measure approx 27v on the upper copper strip and 15v on the lower copper strip.

IMPORTANT - DO NOT PROCEED WITH THE INSTALL UNTIL THE ABOVE HAS BEEN CARRIED OUT AND CONFIRMED AS FULLY WORKING.



INSTALLING THE STAIRLIFT

Fit Legs

Assemble legs.

Turn over rail and fit legs. On a standard length installation all 5 legs must be fitted. There must be a leg on 1st step, legs no further than 1 step above and below the rail joint and a leg on the step below landing. If fitting a powered hinge, legs must be fitted to the 1st & 2nd steps after the hinge joint.



Set Clearance Distances

Turn rail back over and ensure that each leg sits level on the correct step. Adjust until the rail is a minimum of 85mm (3 1/4"), measured diagonally from the nose of the step. This measurement is assuming that the footrest is in the central position as supplied and can be reduced to approx. 50mm (2") by offsetting the footrest.

Set rail 50mm (2") from wall, or with foot hard up against the stinger, whichever is the greater. Ensure that the wall is vertical. If not, base the distance from the innermost point.



Screw down rail and tighten all leg bolts allowing for thickness of step covering to maintain the minimum step clearance distance. Ensure that each foot is attached using 4 screws supplied.

INSTALLING THE STAIRLIFT

Load Drive Unit

Insert 1st section of rack from the top and slide all the way down rail. To insert, line up 'V' cut in rack to notch in rail extrusion.



Unpack Drive Unit. Load at top of track carefully. Ensure that lower carriage rollers are located into rail extrusion channels correctly and that drive and OSG pinions do not catch. Lower Drive Unit, slowly down the Rail Extrusion until drive pinion rests against lower rack section.

Remove Drive Unit side covers.

Do not fit batteries until the drive unit is loaded onto the rail.



Insert Drive Unit batteries. Connect as shown in picture, Orange fuse link between black and red battery terminals, Red to +24v on PCB, Black to On/Off switch in left side cover.

Seat correctly into battery tray. Replace Right side cover only.



INSTALLING THE STAIRLIFT

Fit Chassis Leg

Remove Chassis Leg from packaging and remove plastic covers.



Attach Chassis Leg to Drive Unit ensuring all cables pass through central hole correctly.
Fit washers and nuts, tightening one to temporarily hold Chassis Leg in position.



INSTALLING THE STAIRLIFT

Electrical Connections

Connect footrest loom (Yellow & Brown).



If the stairlift has a powered swivel, connect the swivel motor loom (Red & Black). Black - Black, Red - Red for a Right hand Lift, Black - Red, Red - Black for a Left Hand Lift. Connect swivel limit loom as shown in pictures, Purple - Purple, White - White for Both Hand Lifts. Finally pass chair & display loom up through centre of swivel boss.



Left Hand Lift



Right Hand Lift



INSTALLING THE STAIRLIFT

Adjust Seat Height - Plus Model Only

The seat height can be adjusted if necessary. Unhook lever linked footrest spring, remove 2 bolts joining footrest link, remove 4 large bolts holding top chassis leg section and move up or down to suit. Replace 4 large chassis leg bolts, 2 lever link bolts and spring.



Fit Chair - Standard Model

Fit seat post through swivel boss, being careful not to trap seat loom. Lift swivel levers until locking pin drops into position. Fit retaining clip through hole in seat post. Attach seat loom.



INSTALLING THE STAIRLIFT

Fit Grey ribbon display loom & 2 x IR receiver looms on to chassis leg upper cover. Temporarily leave on footrest.

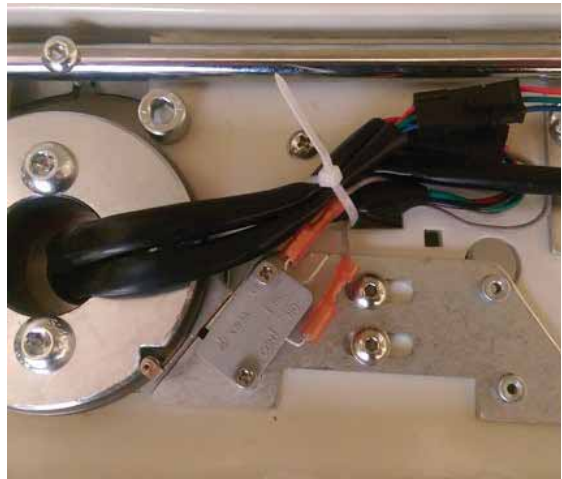


Press manual swivel levers and turn chair, make sure it locks securely at either end of travel and that the swivel interlock switch operates correctly. Key is attached to the arm with a tie wrap, detach and insert into keyswitch under armrest.

Fit Chair - Plus Model

Fit Seat using 4 x 8mm Hex Button Head bolts. Using a torque wrench, tighten to 20 Nm. Connect Chair and Display Looms. Lift manual swivel levers and turn chair, make sure it locks securely at either end of travel and that the swivel interlock switch operates correctly. Key is attached to the arm with a tie wrap, detach and insert into keyswitch under armrest.

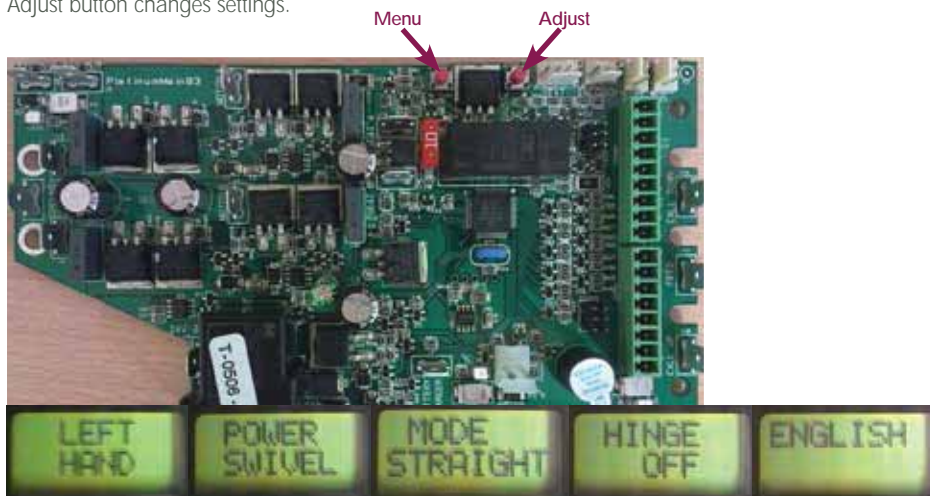
Secure wiring looms with tie-wrap supplied taking care to ensure that cables & plugs cannot be damaged when swiveling"



INSTALLING THE STAIRLIFT

Setting Software Options

Turn lift on using On/Off switch located on left hand side cover. Set stairlift hand, swivel method, lift mode and display language using red buttons on main PCB. Menu button steps through options. Adjust button changes settings.



Run Lift down rail at least 600mm. Refit Drive Unit Left side cover (you may have to change the angle of the Chassis Leg to locate cover correctly). If installing a Hinge unit, reconnect **hinge data connection cable** to Data Bus on main carriage PCB. Fit underseat cover, Plus model only.



Level Seat & Footrest Assembly

Tighten 4 nuts using 13mm socket and torque wrench. Tighten to 25Nm.

If the footrest does not require off setting, re-fit chassis leg covers.

INSTALLING THE STAIRLIFT

Offset Footrest - Plus Model Only

The footrest can be offset if necessary. Unhook lever linked footrest spring, remove screws holding footrest lever link bracket, disconnect footrest loom.



Remove plastic footrest cover, remove footrest limit loom, slacken off grub screw.



Tap mounting bar through bracket and remove footrest assembly, pull loom out of footrest, one connector at a time, remove 3 bolts and reposition bracket. Replace bolts and feed loom back through hole 1 connector at a time. Reattach to chassis leg by knocking mounting bar back through bracket – be careful not to damage footrest limit loom. Tighten grub screw and reattach lever link bracket with 2 screws. Rehook leverlink footrest spring.



INSTALLING THE STAIRLIFT

Fix Racking

Fitting top section(s) of racking. Slide remaining section(s) of racking into the rail extrusion until it is touching the top of the 1st section.



Mark racking flush with rail extrusion, remove and cut ensuring cut is level. Slide racking back into position. Ensure that cut section of rack is at the top of the rail. Fit top end stop / charge assembly. Again, the position of this sets the stairlift height but must be at least 55mm from end of rail. Coil any spare cable and push into top of rail.



Fit Rail end plate as described on page 13 and connect end stop / charge assembly as described on page 15. Be careful not to trap any wires.

Fit rack tension bolt through end stop plate and tighten until a gap starts to appear between plate and rail extrusion. Drill a 4.2mm hole through top of extrusion and racking using the guide line in the rail at least 15mm (1/2") from end of rail extrusion at both the top and bottom. Tap the hole using a 5mm tap and insert the 5mm buttonhead cap screw supplied.



Remove rack tension bolt. Fit plastic end cap. Keep the bolt in case the rack is removed and replaced in the future.

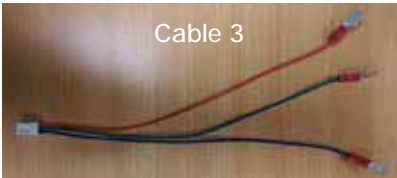
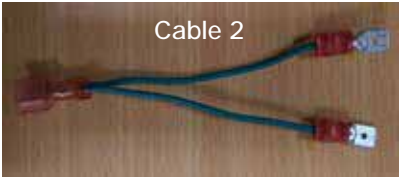
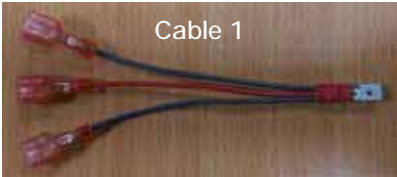
Check that the upper surface of the footrest is no further than 170mm (6 1/2") above bottom and top boarding points. Adjust end stop / charge points to suit.



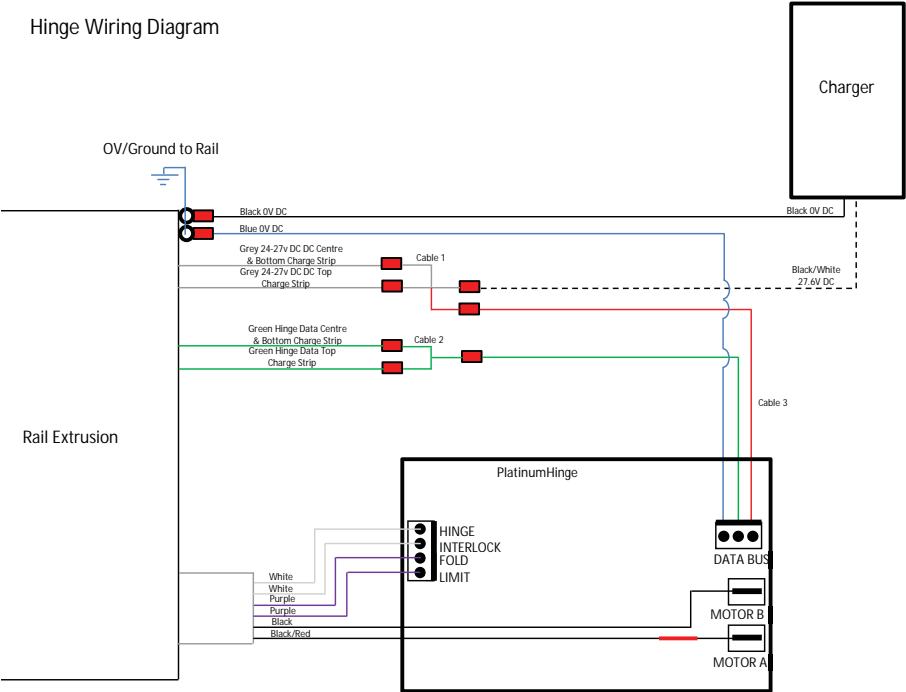
INSTALLING THE STAIRLIFT

Powered Hinge

Use supplied wiring looms and connect as shown in the diagram below. Place Hinge PCB box into top of rail extrusion before fitting plastic end cover.










Hinge Wiring Diagram



CHAIR ALTERATION


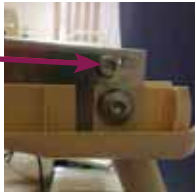


Chair Ergonomic Alteration

The chair can be individually tailored to better fit the customer or installation area. The arm rests can be widened or made shorter, and the seat pad can be moved forward.

<p>The arm rests can be made shorter and/or further apart by removing the 4 x allen bolts, repositioning the arms and replacing the bolts.</p>	
<p>Position 1 Fully extended, fully forward. This will give maximum seat width with maximum length of useable armrest.</p>	
<p>Position 2 Fully extended, fully back. This will give maximum width of seat with minimum useable armrest. (For use when swivel radius width at top of stairs is reduced.)</p>	
<p>Position 3 Mid extended, fully forward.</p>	
<p>Position 4 Mid extended, fully back.</p>	
<p>Position 5 Minimum extended, fully forward. This is how the chairs are supplied as standard.</p>	
<p>Position 6 Minimum Extended, fully back. (For use when swivel radius width at top of stairs is reduced.)</p>	

CHAIR ALTERATION

Chair Ergonomic Alteration (cont.)

<p>When using Positions 2, 4 & 6, the arm rest angle will need altering. Remove 4 x pozi screws in bottom of armrest cover. Remove armrest top.</p>	
<p>Remove bolt</p>	
<p>...and replace here</p>	
<p>The Seat pad can be moved forwards. Undo the zips on the seat pad. Remove the 4 allen bolts shown on the right, reposition seat pad.</p> <p>Replace bolts.</p>	

TEST RUNNING THE STAIRLIFT (1)

Test Running Stairlift - Unladen



Important:

If there are any issues with the stairlift, the system may display System Status Codes. Refer to the System Status Codes section for more details of what these codes mean.

To test run the stairlift (unladen):

Make sure the area covered by the movement of the stairlift is free of obstructions.

Fold down the footrest and swivel the seat into correct travel position. Leave the armrests in the upright position. Do not allow any weight to rest on the carriage as yet.

Run the unladen stairlift to the very bottom of the track. While the stairlift is travelling check:

1. Footrest to riser.
2. Armrest and seat back, especially on staircases with low bulkheads.
3. Seat back to wall/newel
4. Arm rest to wall when swivelled.

At the bottom check that the stairlift is charging correctly and the footrest is at the correct height to allow the user to easily access the stairlift.

Run the stairlift to the top of the track while checking all above points.

At the top check that the stairlift is charging correctly and the footrest is at the correct height to allow the user to easily access the stairlift. Also check the swivel radius to ensure that the downside armrest does not come into contact with the opposite side of the staircase.

REMOTE CONTROLS

Installing the Remote Controls

There are 2 types of remote control, Infra-Red (IR) & Radio Frequency (RF). Each system comes with 2 remote controls as standard. More can be added if required. IR control is supplied as standard, RF control is an available option if local IR interference is causing an issue.

The controls have 3 buttons, Up, Down and a red Park button. The park button is only used in conjunction with the optional intermediate charge point.

To install the remote controls: Infra-Red

The infra-red receivers are mounted in the arm of the chair.

Fit the batteries into the remote controls, then use each of them to call and send the stairlift to and from the other end of the track and then back again.

Locate suitable locations for the control holsters to be mounted, confirm these positions are suitable for the customer, and screw into position.

The controls are sent pre-programmed to the PCB. However, if there are several stairlifts installed in close proximity or there are other infra-red/radio sources in the area creating interference, the Infra-Red signals for each of the stairlifts can be changed so that they do not interfere with each other.

To change the signal

Remove battery cover and batteries from the control.
Remove the four screws holding the back cover of the control and carefully remove the PCB from the plastic housing.

Change jumper settings on all controls for this lift to either 1, 2, 3 or 4.

Carefully, put the PCB back into the plastic housing, replace back cover, batteries & battery cover.

To program the remote controls to the carriage, cycle through the menu and adjust '**Remote 1**' to the corresponding jumper number.



REMOTE CONTROLS

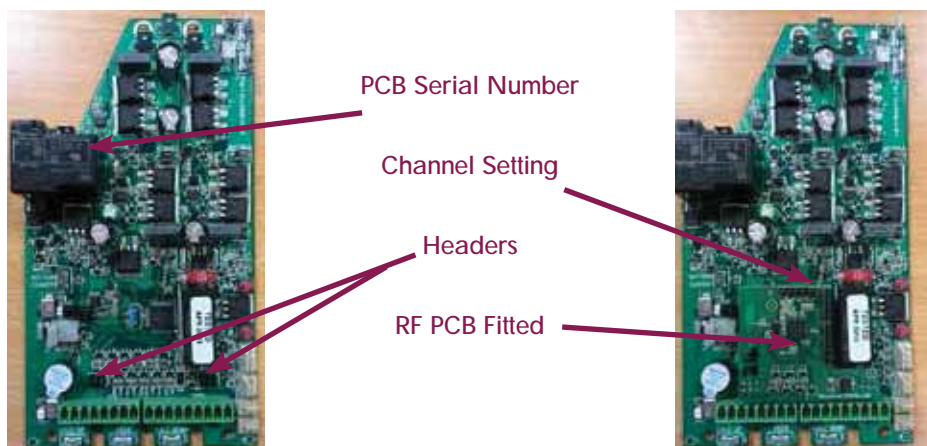
To install the remote controls: Radio Option

These controls have 3 buttons, Up, Down and Park.

The park button will move the stairlift up until it reaches the next charging point.



The RF receiver is a small PCB that fits directly onto headers on the main PCB.



The controls are sent pre-programmed to the PCB. However, if there are several stairlifts installed in close proximity or there are other radio sources in the area creating interference, the channel for each of the stairlifts can be changed so that they do not interfere with each other.

To change the RF Channel

Set the jumper on the RF PCB to either 1, 2, 3 or 4.

As described previously for the IR remote control, remove battery cover and batteries from the control. Remove the four screws holding the back cover of the control and carefully remove the PCB from the plastic housing.

Change jumper settings on all controls for this lift to either 1, 2, 3 or 4.

Carefully, put the PCB back into the plastic housing, replace back cover, batteries & battery cover.



This RF kit is compatible with Platinum Curve and Horizon Lifts with a main PCB serial number of 421 upwards.

The stairlift and charger must be turned off before installation of this PCB.

Ensure that the connection of the PCB is correct before the stairlift is turned back on.

Incorrect connection may result in damage to the Main PCB.

TEST RUNNING THE STAIRLIFT (2)

Test Running Stairlift - Fully Laden

Test running the stairlift fully laden ensures the lift is working correctly, and that it clears any obstacles. It also begins the bedding in process. Please ensure that the rack is lubricated with a suitable silicone or synthetic PTFE based grease at this point. We recommend that you lubricate three teeth every 300mm on the rack.

To test run the stairlift (fully laden):

Move the stairlift to the bottom of the track, fold down the armrests and footrest, Load the chair to capacity. Using one of the remote controls, send the stairlift to the top of the rail. Keep direction control activated to ensure chair automatically swivels to safe entry/exit position. Press remote control in opposite direction to ensure chair swivels back to correct travel position.

To test manual swivel, lift swivel levers, and ensure chair will swivel into correct entry/exit position. Press direction control in downwards direction to ensure swivel interlock switch is working, and stairlift will not descend in this position. Lift swivel levers and ensure chair swivels back to correct travel position.

Use remote control to send stairlift down the stairs, stop part way along the rail and then reverse direction to bring stairlift back to the top, ensuring the stairlift stops correctly.

Use the remote control to travel down the stairs. Ensure the stairlift stops correctly.

Make sure the stairlift comes to a stop quickly, if you do any of the following actions:

Let go of the direction control.

Encounter an obstruction with the footrest.

Encounter an obstruction with the safety pads on the carriage.

Swivel the seat.

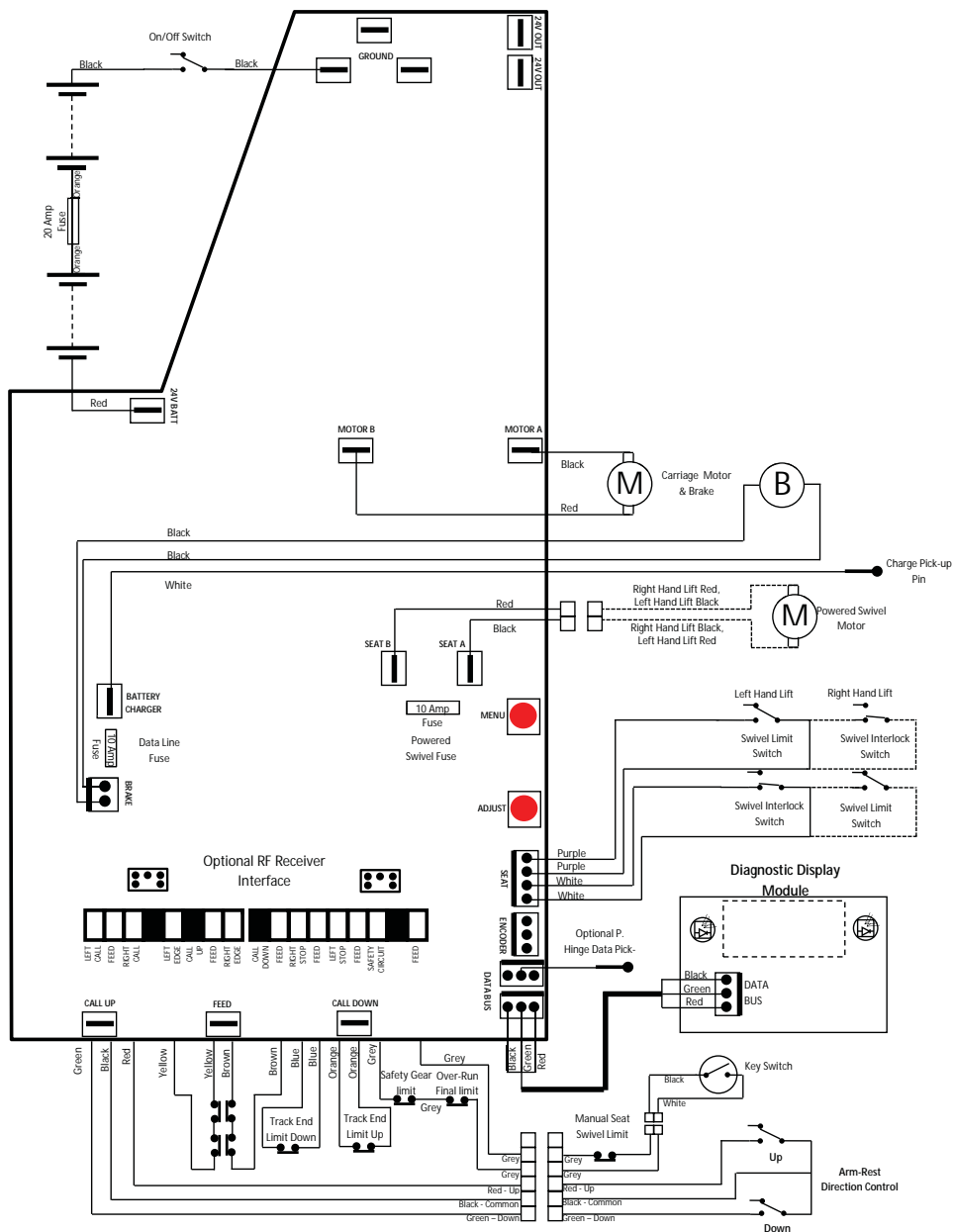
Run the stairlift from one end of the track to the other; then return it to its original position. For both trips make sure it runs freely and smoothly, and proceeds clear of stair treads and any other fixed obstructions. At one end of the track, stop the stairlift at one end of the track, undo the seatbelt and make sure the plug part of the lock retracts into its housing.

Lift up the seat, footrest and arm rests and make sure they all stay upright.

Run the stairlift to the middle of the track, then stop it.

Use the hand-winding procedure to make sure the chair can be hand-wound both up and down the track.

CONNECTION DIAGRAM



TECHNICAL INFORMATION

Weight Limits

The stairlift has been designed to carry one person only, in a seated position. The stairlift has a maximum weight limit of 264lbs (140kg).

Operating Periods/Excessive Use

The stairlift has been designed to run for four minutes with a break of at least six minutes afterwards. If you use the stairlift too often without taking a break, the motor will not cool down between journeys and may become damaged.

Replacement Batteries

We recommend that the batteries in each remote control are renewed at least every six months. This is the responsibility of the user.

Maintenance

To maintain safe and reliable operation, the standard stairlift needs a annual safety inspection and service.



Important:

Modifications which have not been expressly approved by the manufacturer may void the warranty and may cause damage. Your stairlift should be inspected and maintained by a Platinum approved service engineer.

Upholstery

Carelessness with matches, cigarettes and so on can cause a fire.

The upholstery material used on your stairlift has been tested for compliance with BS5852.

Hand Winding the Stairlift

If necessary, for example to release the safety gear after the OSG has activated or to return the carriage from an over-run position, the stairlift can be manually hand-wound using the supplied winding handle. If the OSG has been activated, the carriage should only be hand-wound in the upwards direction. Hand winding should only be attempted by, or under the supervision of a competent stairlift engineer.

To hand-wind the stairlift:

- Fully insert the winding handle into the Emergency Hand Wind Mechanism Socket (8)
- Keeping the handle fully inserted, carefully rotate it as needed
- If you rotate the handle clockwise, this will move the chair to the right
- If you rotate the handle anti-clockwise, this will move the chair to the left
- Never use the stairlift when the winding handle is in the socket

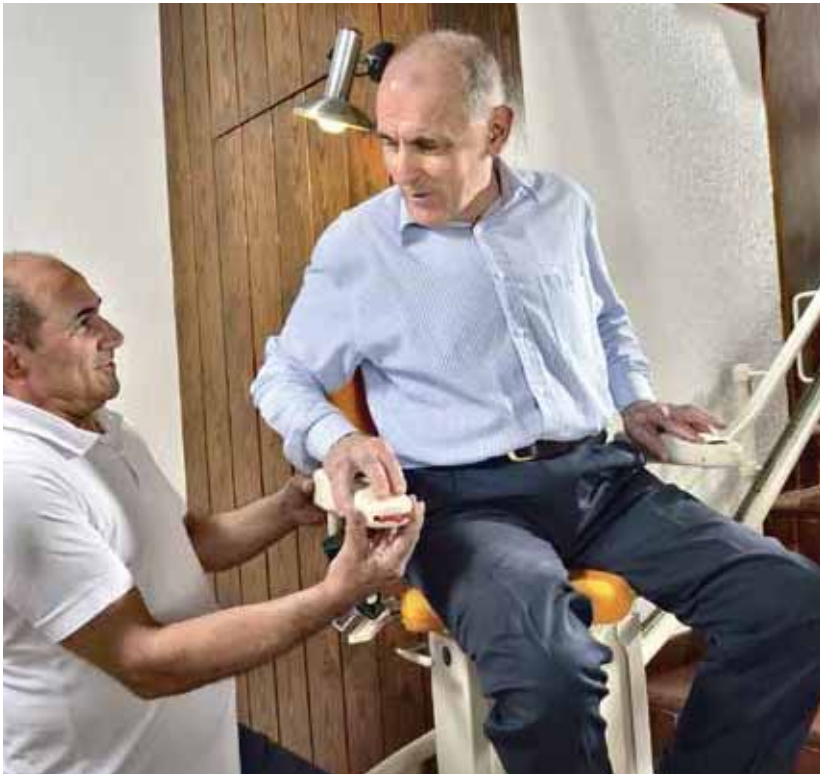
TECHNICAL INFORMATION

Releasing a Trapped User

If a user becomes trapped on the stairlift due to a fault, they should be assisted from the chair in the following way:

- Lift one of the manual swivel levers and rotate the carriage towards the staircase until seat locks into swivelled position.
- Release users seatbelt
- Lift manual swivel levers and return seat to original position.

**Never exit seat without first turning towards staircase
and ensuring that it lock into position.
Always exit upwards.**



DIAGNOSTIC CODES

Diagnostic Display

These codes are displayed on the Diagnostics Display panel.

Code	Meaning
No Display	No power 1. Check the battery isolator switch is in the 'I' position. 2. Check batteries are correctly connected and in good order. 3. Check 10 Amp data line fuse.
Platinum	OK The stairlift is on charge and everything is OK, lift should operate normally.
Safety Circuit / Final Limit	Final Limit Fault/Safety Circuit short to 0v 1. Check key switch is on connected and working. 2. Check seat swivel switch is connected and working. 3. Check if the stairlift has over-run and switch is connected and working. 4. Check if OSG and safety gear has actioned and switch is connected and working.
Low Battery	Batteries Need Charging Stairlift batteries are down to 21V. 1. Check transformer is plugged in to mains socket and turned on. 2. Check charging point voltage is present unloaded and loaded. 3. Check charge voltage is present on white charge connector on main PCB.
Off Charge	Lift is off Charge Stairlift batteries are not charging (the stairlift may still work). To charge them: 1. Move the stairlift to a charging point. 2. Check transformer is plugged in to mains socket and turned on. 3. Check charging point voltage is present unloaded and loaded. 4. Check charge voltage is present on white charge connector on main PCB.
End Stop	End Stop Activated Ensure that both track and staircase are clear of obstructions.
Safety Edge	Lift stopped by safety edge in direction of travel (footplate or side cover) Ensure that both track and staircase are clear of obstructions.
Move Right	Lift travel direction Right.
Move Left	Lift travel direction Left.
Seat Swivel	Seat in Swivelled position Lift cannot move until powered swivel seat is returned to travel position. 1. Check powered swivel option is selected in menu. 2. Check lift is set as correct hand in menu. 3. Check lift is at top of track and bottom skate end stop is activated. 4. Check transformer is plugged in to mains socket and turned on. 5. Check charging point voltage is present unloaded and loaded. 6. Check charge voltage is present on white charge connector on main PCB.
Thermal Cut Out	Motor and motor drive are running too hot, overloaded lift or excessive use. Switch lift off and allow motor to cool.
Call Conflict	More than one conflicting call received. Direction toggle or wall control direction button stuck on.
Release Joystick	Conflicting call received. User needs to release joystick and re-input call.
Brake Fault	Motor brake inoperable. Reset lift. Check brake connection on main PCB and reset lift.
Relay Fault	Power relay did not close Check battery charge level. Reset lift. Tap Relay. If problem persists, renew PCB. There are also 3 thermal fuses on the PCB. If any of these fuses are activated, a red LED located nearby will light. This generally indicates a wiring fault on one of the circuits connected to the PCB in the surrounding area to that LED.
Hinge	Hinge arm is not fully down Check hinge arm is fully down. Run lift upwards to intermediate or top charge point and allow hinge to lower on downwards call. Check Hinge interlock circuit for operation.

ENGINEER'S MENU

Engineer's Diagnostics and Settings

Further diagnostics and settings are available by cycling through the menu system.

Code	Meaning
Position 12345	Lifts current position on rail. Bottom end stop is 00000. Press and hold menu button to re-program.
Remote 1/2/3/4	Shows current Remote channel selection. Press adjust button to change.
Right / Left Hand	Shows current installation hand selected. Press adjust button to change.
Quiet Travel / Travel Alarm	Shows current travel alarm selection. Press adjust button to change.
Landing Stop /Pass	Shows current landing selection. Press adjust button to change.
Powered / Manual Swivel	Shows current swivel selection. Press adjust button to change.
Edge 123	Number of sensitive edge trips since last engineer reset. Press adjust button to reset to 0.
Low Batt 123	Number of low battery events since last engineer reset. Press adjust button to reset to 0.
Trips 12345	Number of trips (up or down) done by control system. Not resettable.
Safety 123	Number of safety circuit trips since last engineer reset. Press adjust button to reset to 0.
Brake 123	Number of brake faults since last engineer reset. Press adjust button to reset to 0.
Relay 123	Number of relay faults since last engineer reset. Press adjust button to reset to 0.
Lost Position 123	Number of times position has been lost since last engineer reset. Press adjust button to reset to 0.
Battery Bar (bar display 1-8)	A bar display of battery voltage. Approx. 21V (all off) to 27V (all on).
Low battery	Battery below 21V.

Mains Power, Battery Power and Power Cuts

The DC charger supplies power to a set of large internal batteries. These batteries then power the motor which lifts the chair up and down the stairs.

If the mains power fails, you can continue to use the stairlift for a short while as the batteries store enough power to allow you up and down the stairs a few times.

SERVICING

Servicing

The Standard Horizon stairlift requires a service every **12 months**.

If working on the drive unit while still mounted on the rail extrusion, it is advisable to move it as close to the floor downstairs as possible. All lifting and carrying should be in line with current HSE manual handling guidelines.

Service Carriage

- Remove carriage from rail. Turn off. Remove plastic side covers.
- Check rollers for wear/damage. If replacing, lubricate roller shafts lightly.
- Check pinion for wear/damage.
- Check all rollers rotate freely. If necessary lubricate roller shafts lightly.
- Check all wires and connectors for damage & operation of all switches.
- Check operation of OSG and safety gear.
- Check operation of charge pin, left/right end stop switches and final limit switch.
- Remove any debris including excessive, built up grease and clean all surfaces.
- Check all wiring and connectors to PCB.
- Check all wiring and connectors to batteries.
- Check battery condition. Replace if necessary.
- Check hand-wind mechanism operates correctly.
- Check wiring, connectors and switches on side cover safety edges.
- Ensure footrest operates correctly.
- Ensure footplate safety edges operate correctly.
- Ensure footrest carpet is fixed correctly.
- Replace side covers ensuring they fit correctly and safety edges operate correctly.
- Ensure Diagnostic Display shows correct codes.
- Check all wiring and connectors.
- Ensure the 4 x M8 Hex bolts are tightened to a torque of 25 Nm.
- Ensure manual swivel mechanism is free of debris and operates correctly.
- Ensure swivel interlock switch operates correctly.
- Remove plastic covers around powered swivel, check all wiring and connectors, ensure the area is free of debris. Check operation and replace plastic covers.
- Check arm rests operate correctly.
- Check seat belt operates correctly.
- Check all controls operate correctly.
- Remove plastic seat base cover.
- Check wiring, connectors and switches on manual swivel limit.
- Ensure the 4 x M5 Hex bolts are tightened to a torque of 20 Nm

Service Rail

- Clean excessive grease off racking and inspect for damage/wear. If necessary re-apply lubrication. We recommend that you lubricate three teeth every 300mm on the rack.
- Inspect rack jointing bolts and replace/re-fit if necessary.
- Clean rail and inspect for damage.
- Check combined end stops/charging ramps are fixed firmly and in the correct position.
- Inspect rail joints and legs and replace/re-fit if necessary.
- Inspect all leg screws and replace/re-fit if necessary.
- Check charge circuit is operating correctly.
- Check carriage stops in the correct position at the top and bottom.

SERVICING

If Hinge Rail

- Check operation of limit switches.
- Check operation of plastic guard covers.
- Check operation of Hinge rail
- Clean excessive grease of mechanism and check for damage. If necessary re-apply lubrication.

NOTES



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